



Air Quality Permitting Statement of Basis

April 14, 2008

Tier I Operating Permit No. T1-2008.0053

Basic American Foods, Rexburg

Facility ID No. 065-00008

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Proposed for Public Comment

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Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	Environmental Protection Agency
gpm	gallons per minute
gr	grain (1 lb = 7,000 grains)
HAPs	Hazardous Air Pollutants
hp	horsepower
IDAPA	A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pounds per hour
m	meter(s)
MACT	Maximum Available Control Technology
MMBtu	Million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O ₃	ozone
PM	Particulate Matter
PM ₁₀	Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
PTE	Potential to Emit
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/yr	Tons per year
µg/m ³	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose of this memorandum is to explain the legal and factual basis for this Tier I operating permit in accordance with IDAPA 58.01.01.362.

The Department of Environmental Quality (DEQ) is incorporating the conditions of Tier II Operating Permit and Permit to Construct No. T2-030515 into the Tier I operating permit. The Tier II operating permit and this Tier I operating permit will be issued concurrently.

2. FACILITY DESCRIPTION

The Basic American Foods (BAF) Rexburg plant produces dehydrated food products using a variety of drying and dehydration processes. Products are dried by contact with heated air. Drying air is heated either by direct-firing with natural gas or indirectly using steam heat exchangers. Steam for plant operations is provided by the wood and coal-fired Kipper boiler and natural gas-fired boilers no. 1 and no. 2. The manufacturing process consists of two separate lines (Process A and Process B) that produce various dehydrated food products such as potato granules, formulated food products, and whole and piece food products. Off-spec material is sold as animal feed. Potato starch released during processing is recovered and sold. Starch recovery is a wet process with no associated air emissions. Plant process water is also applied to on-site and off-site farmland. Off-site farms are not part of the BAF Rexburg facility and are not included in this permit.

A portion of the Rexburg facility is leased to Idaho Fresh Cooperative as a fresh potato packing operation.

3. FACILITY/AREA CLASSIFICATION

This facility is a major facility as defined by IDAPA 58.01.01.008.10 because it emits or has the potential to emit regulated air pollutant(s) in amounts greater than or equal to major facility threshold(s) listed in Subsection 008.10. Refer to Section 6.2 of this document for an emission inventory summary of the air pollutants emitted by this facility.

This facility is not a designated facility as defined by IDAPA 58.01.01.006.30 because the facility employs fossil-fuel boilers with a combined heat input of less than 250 MMBtu per hour. Total boiler heat capacity is approximately 165 MMBtu per hour.

This facility is not a major facility as defined by IDAPA 58.01.01.205 (40 CFR 52.21(b)(1)) because it not longer has the potential to emit a regulated criteria air pollutant (carbon monoxide) in amounts greater than or equal to 250 tons per year.

The Standard Industrial Classification (SIC) defining the facility is 2034 which represents establishments primarily engaged in artificially dehydrating fruits and vegetables, including “potato flakes, granules, and other dehydrated potato products.” The Aerometric Information Retrieval System (AIRS) facility classification is A.

The facility is located in Rexburg, which is classified as unclassifiable for all regulated criteria pollutants. There is not a Class I area within 10 kilometers of the facility. This facility is located in Air Quality Control Region (AQCR) 61 and Universal Transverse Mercator (UTM) Zone 12.

A review of the site location information included in the permit application indicates that the facility is located within 50 miles of a state border. Therefore, the states of Montana and Wyoming were provided an opportunity to comment on the draft Tier I operating permit during the comment period.

4. APPLICATION SCOPE

This project is a significant modification of the facility's Tier I permit to incorporate the requirements of the Tier II Operating Permit and Permit to Construct No. T2-030515. With the issuance of permit no. T2-030515 the facility has completed the requirements of the Compliance Plan in the initial Tier I operating permit.

5. SUMMARY OF EVENTS

May 28, 2003	DEQ received a facility-wide Tier II permit application
September 23, 2003	DEQ received request for Tier I modification to incorporate Tier II permit provisions
September 10, 2004	DEQ issued a draft Tier II permit to BAF for review
November 2004	DEQ placed the Tier II project on an inactive backlog due to workload constraints.
June 2006	DEQ reactivated the project and began reviewing BAF's comments on the draft Tier II permit and the updated modeling analysis
January 2007	BAF requested that the Tier II operating permit include a Facility Emissions Cap (FEC), so the Tier II permit project and Tier I permit renewal were put on hold awaiting FEC application update
January 23, 2008	DEQ and BAF determined that the Tier II operating permit should be issued to address the compliance issues without FEC limits because BAF had not yet submitted an application amendment that included FEC information
February 15, 2008	DEQ issued a second draft Tier II operating permit and permit to construct to BAF for review
March 12, 2008	DEQ received comments on the draft Tier II permit from BAF via email

5.1 *Permitting History*

July 30, 1980	PTC Letter (no number assigned) for the Kipper boiler issued
April 30, 1981	PTC Letter was amended to revise test dates
May 8, 1984	PTC Letter was amended to clarify coal/wood input limits
December 11, 2002	Initial Tier I Operating Permit No. 065-00008 issued

6. PERMIT ANALYSIS

6.1 *Basis of Analysis*

The following documents were relied upon in preparing this memorandum and the Tier I operating permit:

- PTC Letter (no number assigned), issued July 30, 1980
- PTC Letter amendments, issued April 30, 1981, and May 8, 1984
- Tier I Operating Permit No. 065-00008, issued December 11, 2002
- Tier II Operating Permit and Permit to Construct No. T2-030515 (draft)

6.2 Emissions Description and Emissions Inventory

The equipment listing and emissions inventory for criteria pollutants from all sources at the BAF Rexburg facility is summarized in Table 6.1. This inventory summarizes the potential facility emissions following issuance of the Tier II/PTC.

Table 6.1 SUMMARY OF EMISSIONS INVENTORY

Basic American Foods, Rexburg										
Potential Emissions – Hourly (lb/hr), and Annual (T/yr)										
Source Description	PM₁₀		CO		NO_x		SO₂		VOC	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Kipper & Sons boiler	16.25	71.2	60.3	249	27.4	120	48.9	214.2	2.9	12.9
Boiler 1	0.39	1.7	4.3	18.8	5.1	22.3	0.12	0.5	0.28	1.2
Boiler 2	0.26	1.1	2.9	12.6	3.4	15.0	0.08	0.4	0.19	0.8
Process A										
Cooler/Dryer 7020 (Cooler vent) ^a	0.41	1.8	---	---	---	---	---	---	---	---
Cooler/Dryer 7101 (Dryer, 6.5 MMBtu/hr, natural gas-fired)	2.16	9.5	1.7	7.4	0.3	1.5	0.12	0.5	0.04	0.2
Cooler/Dryer 7102 (Dryer, 6.5 MMBtu/hr, natural gas-fired)	2.16	9.5	1.7	7.4	0.3	1.5	0.12	0.5	0.04	0.2
Cooler/Dryer 7019 (Dryer, 6.6 MMBtu/hr, steam and natural gas) ^a	3.39	14.8	1.7	7.5	0.3	1.5	0.22	1.0	0.04	0.2
Cooler/Dryer 7001 (Dryer, steam-heated)	0.23	1.0	---	---	---	---	0.03	0.1	---	---
Cooler/Dryer 7027 (Cooler)	0.04	0.2	---	---	---	---	---	---	---	---
Material Recovery Unit 7006	0.12	0.5	---	---	---	---	---	---	---	---
Process B										
Material Recovery Unit 5034 ^a	0.017	0.1	---	---	---	---	---	---	---	---
Cooler/Dryer 5037 (Cooler/dryer vent, dryer is steam heated) ^a	1.29	5.7	---	---	---	---	1.87	8.2	---	---
Cooler/Dryer 4000 (Dryer, steam heated) ^{a,b}	1.72	7.5	---	---	---	---	0.26	1.1	---	---
Cooler/Dryer 228, (Dryer, natural gas-fired, 16.1 MMBtu/hr) ^{a, b}	1.1	4.8	1.26	5.5	0.25	1.1	0.19	0.8	0.05	0.2
Cooler/Dryer 234, (Second exhaust from dryer 228) ^{a, b}	0.31	1.4	0.84	3.7	0.16	0.7	0.06	0.3	0.03	0.2
Cooler/Dryer 311, (Dryer, steam-heated) ^b	0.29	1.3	---	---	---	---	0.05	0.2	---	---
Cooler/Dryer 312, (Dryer, steam-heated) ^b	0.29	1.3	---	---	---	---	0.05	0.2	---	---
Cooler/Dryer 410/411, (Dryer vent, steam-heated) ^b	0.59	2.6	---	---	---	---	0.09	0.4	---	---
Cooler/Dryer 613/614, (Dryer vent, steam-heated) ^{a, b}	1.09	4.8	---	---	---	---	0.17	0.7	---	---
Cooler/Dryer 615/616, (Dryer vent, steam-heated) ^{a, b}	0.85	3.7	---	---	---	---	0.13	0.6	---	---
Cooler/Dryer 638 ^{a, b}	0.24	1.1	---	---	---	---	0.04	0.2	---	---
Material Recovery Unit 707 (fabric filter)	0.000	0.007	---	---	---	---	---	---	---	---
Material Recovery Unit 725 (fabric filter)	0.05	0.2	---	---	---	---	---	---	---	---
Material Recovery Unit 8 (fabric filter)	0.05	0.2	---	---	---	---	---	---	---	---
Material Recovery Unit 5001	0.24	1.1	---	---	---	---	---	---	---	---
Material Recovery Unit 5000 (fabric filter) ^a	0.05	0.2	---	---	---	---	---	---	---	---
Material Recovery Unit 432 (fabric filter) ^a	0.05	0.2	---	---	---	---	---	---	---	---
Material Recovery Unit 322 ^a	0.000	1.1	---	---	---	---	---	---	---	---
Material Recovery Unit 572 (Vent from material recovery cyclone in animal feed load-out system) ^a	0.19	0.8	---	---	---	---	---	---	---	---
Plant Heaters	0.23	0.5	2.5	5.6	3.0	6.6	0.07	0.2	0.17	0.4
Total Point Source Emissions	---	150	---	249^c	---	170	---	230	---	16
Fugitive Emissions Sources										

Woodpile	2.28	10.0	---	---	---	---	---	---	3.4	14.9
Facility Roads	3	15.0	---	---	---	---	---	---		
Total Fugitive Emissions	---	25.0	---	---	---	---	---	---	---	14.9

^a Source was constructed after 1969 without a PTC.

^b Each of the following Cooler/Dryer groups are considered to constitute a single emissions unit for permitting purposes: 4000, 228 and 234; 311, 312 and 410/411; 613/614, 615/616 and 638.

^c The PTC limits facility-wide CO emissions to 249 tons/yr, which includes the plant heaters.

Potential hazardous air pollutant emissions by fuel source were determined by BAF and presented in the Tier I permit application, Table 3-3.

Table 6.2 HAP EMISSION INVENTORY

Fuel	Natural Gas	Wood	Coal	Total
Max. firing rate (MMBtu/yr)	1,344,660	394,200	394,200	-
Potential HAP Emissions, (T/yr)	1.24	4.24	2.94	8.41

7. REGULATORY ANALYSIS

7.1 IDAPA 58.01.01.382 – Tier I Operating Permit Significant Permit Modification

Tier I operating permit significant modifications are subject to the same procedural requirements, including those for public participation, affected states review, and EPA review, that apply to initial Tier I operating permit issuance.

7.2 New Source Performance Standards (NSPS) – 40 CFR 60

No New Source Performance Standards apply to any of the emissions units at the Rexburg facility. The Kipper boiler and boilers no. 1 and no. 2 were constructed prior to the Subpart Dc applicability date of June 9, 1989.

7.3 National Emission Standards for Hazardous Air Pollutants (NESHAPS) – 40 CFR Parts 61 & 63

No MACT or NESHAP rules apply because the Rexburg Plant is not a major source of Hazardous Air Pollutant emissions and is not in one of the applicable source categories.

7.4 Compliance Assurance Monitoring (CAM) – 40 CFR Part 64

The Kipper boiler is required to follow a CAM plan because the boiler meets the applicability criteria in 40 CFR 64.2(a) as follows:

(1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;

The Kipper boiler is subject to the grainloading standard for fuel burning equipment found in IDAPA 58.01.01.675-681. The Kipper boiler was installed after October 1, 1979, so the applicable standards for new sources are applicable when burning wood or a wood/coal mixture. The boiler is not exempt from CAM requirements under any of the exemption criteria in 40 CFR 64.2(b).

(2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and

The Kipper boiler uses a multiclone and wet scrubber to meet the particulate matter standard.

(3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this paragraph, “potential pre-control device emissions” shall have the same meaning as “potential to emit,” as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.

For particulate matter, 100 tons per year is the emission level for a source to be classified as a major source under 40 CFR Part 70. Pre-control emissions of particulate matter are estimated by BAF to be 220 tons per year.

In accordance with 40 CFR 64.6(c), at a minimum the permit shall specify:

(1) The approved monitoring approach that includes all of the following:

(i) The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);

BAF has proposed monitoring the boiler steaming rate, multiclone pressure drop, scrubber downstream static pressure, scrubber water pressure, and the combination of firebox static pressure and induced draft fan speed.

(ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and

The following devices are used to monitor the indicators

- Steaming rate: pressure and temperature compensated orifice plate
- Multiclone pressure drop: Digital pressure gauges located upstream and downstream of the multiclone
- Scrubber downstream static pressure: Digital pressure gauge located downstream of the scrubber
- Scrubber water pressure: Manual pressure gauge located on the scrubber water supply header
- Firebox static pressure: Digital pressure gauge tapped into firebox wall
- Induced draft fan speed: Recorded from system operating controls

(iii) The performance requirements established to satisfy §64.3(b) or (d), as applicable.

Not applicable. The criteria in §64.3(d) are not applicable because the section includes special criteria for the use of continuous emission, opacity or predictive monitoring systems, which BAF is not using. Therefore, BAF must comply with the performance requirements in §64.3(b).

§64.3(b) Performance criteria. The owner or operator shall design the monitoring to meet the following performance criteria:

(1) Specifications that provide for obtaining data that are representative of the emissions or parameters being monitored (such as detector location and installation specifications, if applicable).

Steaming rate: The orifice plate is situated in the steam header. Data acquisition system monitors pressure drop across the orifice plate, steam temperature, and steam pressure, and calculates steam rate from these parameters.

Multiclone pressure drop: Digital pressure gauges are located upstream and downstream of the multiclone. Pressure drop is determined by the difference in reading between the gauges and is

displayed on the boiler control system status screen. The sensitivity of the unit is ± 0.1 inches of water.

Scrubber downstream static pressure: A digital pressure gauge is located in the scrubber, downstream of the scrubber rods. Pressure is read directly by the gauge and is displayed on the boiler control system status screen. Data are manually recorded every two hours. The sensitivity of the unit is ± 0.1 inches of water.

A drop in the scrubber downstream static pressure to below 5.6" of water column is a possible indicator of a plug-up of the scrubber rod bank.

Scrubber water pressure: Manual (dial) pressure gauge located on the scrubber water supply header. Scrubber water pressure is determined by direct observation of the gauge every two hours. The gauge can be read to about ± 0.5 psig.

Firebox static pressure: A digital pressure gauge is tapped into the side of the firebox. Pressure is read directly by the gauge and is displayed on the boiler control system status screen. Data are manually recorded every two hours. The sensitivity of the unit is ± 0.01 inches of water.

Induced draft fan speed: The fan speed is set and monitored by the boiler control system. The fan speed is displayed to the nearest percent on the boiler control system status screen. Data are manually recorded every two hours. A scrubber plug-up is indicated if the induced draft fan operates at 100% speed and is unable to maintain a negative pressure in the firebox.

(2) For new or modified monitoring equipment, verification procedures to confirm the operational status of the monitoring prior to the date by which the owner or operator must conduct monitoring under this part as specified in §64.7(a). The owner or operator shall consider the monitoring equipment manufacturer's requirements or recommendations for installation, calibration, and start-up operation.

Not applicable. This paragraph is not applicable to BAF because all monitoring equipment was installed and operating during the performance test upon which the compliance plan is based.

(3) Quality assurance and control practices that are adequate to ensure the continuing validity of the data. The owner or operator shall consider manufacturer recommendations or requirements applicable to the monitoring in developing appropriate quality assurance and control practices.

Steaming rate: The steam recorder was calibrated when installed. There is no manufacturer recommended calibration schedule. BAF will inspect the orifice plate every other year to verify physical condition of the orifice plate and overall health of the transmitter system. The overall performance of the transmitters will be checked every other year. The performance evaluation will include verifying overall transmitter health and conducting span checks of the entire loop.

Multiclone pressure drop: According to BAF, digital pressure gauges have very little tendency to drift, and calibration is not needed. The overall performance of the transmitters will be checked every other year. The performance evaluation will include verifying overall transmitter health and conducting span checks of the entire loop.

Scrubber downstream static pressure: Digital pressure gauges have very little tendency to drift, and calibration is not needed. The overall performance of the transmitter will be checked every other year. The performance evaluation will include verifying overall transmitter health and conducting span checks of the entire loop.

Scrubber water pressure: The pressure gauge reading will be compared with a second manual pressure gauge monthly. If the readings differ by more than 1 psig, troubleshooting will be initiated.

Firebox static pressure: Digital pressure gauges have very little tendency to drift, and calibration is not needed. The overall performance of the transmitter will be checked every other year. The performance evaluation will include verifying overall transmitter health and conducting span checks of the entire loop.

Induced draft fan speed: The sensor for fan speed setting unit is not subject to drift and does not require calibration.

(4) Specifications for the frequency of conducting the monitoring, the data collection procedures that will be used (e.g., computerized data acquisition and handling, alarm sensor, or manual log entries based on gauge readings), and, if applicable, the period over which discrete data points will be averaged for the purpose of determining whether an excursion or exceedance has occurred.

(i) At a minimum, the owner or operator shall design the period over which data are obtained and, if applicable, averaged consistent with the characteristics and typical variability of the pollutant-specific emissions unit (including the control device and associated capture system). Such intervals shall be commensurate with the time period over which a change in control device performance that would require actions by owner or operator to return operations within normal ranges or designated conditions is likely to be observed.

(ii) For all pollutant-specific emissions units with the potential to emit, calculated including the effect of control devices, the applicable regulated air pollutant in an amount equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, for each parameter monitored, the owner or operator shall collect four or more data values equally spaced over each hour and average the values, as applicable, over the applicable averaging period as determined in accordance with paragraph (b)(4)(i) of this section. The permitting authority may approve a reduced data collection frequency, if appropriate, based on information presented by the owner or operator concerning the data collection mechanisms available for a particular parameter for the particular pollutant-specific emissions unit (e.g., integrated raw material or fuel analysis data, noninstrumental measurement of waste feed rate or visible emissions, use of a portable analyzer or an alarm sensor).

The potential to emit particulate matter, calculated including the effect of the multiclone and wet scrubber, is less than 100 T/yr. Therefore, the parametric monitoring does not need to be conducted four or more times per hour.

(iii) For other pollutant-specific emissions units, the frequency of data collection may be less than the frequency specified in paragraph (b)(4)(ii) of this section but the monitoring shall include some data collection at least once per 24-hour period (e.g., a daily inspection of a carbon adsorber operation in conjunction with a weekly or monthly check of emissions with a portable analyzer).

Steaming rate: Steam production is totalized continuously, and the steam production is recorded hourly. The hourly steam values are summed to provide a 24-hour total. The daily average steam rate is obtained by dividing the 24-hour total by 24.

Multiclone pressure drop: Data are manually recorded every two hours in the boiler operating log.

Scrubber downstream static pressure: Data are manually recorded every two hours in the boiler operating log.

Scrubber water pressure: Data are manually recorded every two hours in the boiler operating log.

Firebox static pressure: Data are manually recorded every two hours in the boiler operating log.

Induced draft fan speed: Data are manually recorded every two hours in the boiler operating log.

(2) The means by which the owner or operator will define an exceedance or excursion for purposes of responding to and reporting exceedances or excursions under §§64.7 and 64.8 of this part. The permit shall specify the level at which an excursion or exceedance will be deemed to occur, including the appropriate averaging period associated with such exceedance or excursion. For defining an excursion from an indicator range or designated condition, the permit may either include the specific value(s) or condition(s) at which an excursion shall occur, or the specific procedures that will be used to establish that value or condition. If the latter, the permit shall specify appropriate notice procedures for the owner or operator to notify the permitting authority upon any establishment or reestablishment of the value.

BAF proposed operating ranges upon which an excursion will be deemed to occur for each of the indicators monitored. The ranges are provided in Table 7.1 below.

(3) The obligation to conduct the monitoring and fulfill the other obligations specified in §§64.7 through 64.9 of this part.

The required obligations from §64.7 through 64.9 were included in the permit.

(4) If appropriate, a minimum data availability requirement for valid data collection for each averaging period, and, if appropriate, a minimum data availability requirement for the averaging periods in a reporting period.

Not applicable. Minimum data availability requirements are not needed for BAF's CAM plan because continuous monitoring is not being conducted and the data is not averaged.

Table 7.1 MONITORING REQUIREMENTS FOR THE KIPPER BOILER

	Indicator No.1	Indicator No.2	Indicator No.3	Indicator No.4	Indicator No. 5
I. Indicator	Boiler Steaming Rate	Multiclone pressure drop	Scrubber downstream static pressure	Scrubber water pressure	Combination of firebox static pressure and induced draft fan speed setting
Measurement Approach	The boiler steaming rate is measured using a pressure and temperature compensated orifice plate that is located in the steam header. Data acquisition system monitors pressure drop across the plate, steam temperature, and steam pressure and calculates steam rate from these parameters.	The multiclone pressure drop is measured by digital pressure gauges located upstream and downstream of the multiclones. Pressure drop is determined by the difference in reading between the gauges and is displayed in the boiler control room.	The scrubber downstream static pressure is measured using a digital pressure gauge in the scrubber throat downstream of the scrubber rods.	The scrubber water pressure is measured using a manual pressure gauge located in the scrubber water supply header. Scrubber water pressure is determined by direct observation of the gauge.	The firebox static pressure is measured using a digital pressure gauge tapped into the firebox. The induced draft fan speed setting is measured directly from the speed control setting for the fan.
II. Indicator Range	An excursion is defined as a boiler steaming rate less than 35,000 lbs/hr or greater than 65,000 lbs/hr.	An excursion is defined as a multiclone pressure drop less than 1.0 inches of water or greater than 5.0 inches of water.	An excursion is defined as a scrubber downstream static pressure that is less than 5.6 inches of water column.	An excursion is defined as a scrubber water pressure less than 4.0 psig or greater than 10 psig.	An excursion is defined as any time the induced draft fan goes to 100% speed and is unable to maintain a negative pressure in the firebox.
III. Performance Criteria					
A. Data Representativeness	The boiler steaming rate sensor is located in the steam header.	The multiclone pressure drop monitors are located upstream and downstream of the multiclones. The sensitivity is ± 0.1 in. H ₂ O.	The scrubber downstream static pressure monitor is located downstream of the scrubber rods. The sensitivity is ± 0.1 in. H ₂ O.	The scrubber water pressure monitor is located in the water supply header. The gauge can be read to ± 0.5 psig.	The firebox static pressure monitor is tapped into the firebox. The sensitivity is 0.01 inches of water column. The fan speed is recorded directly from the boiler control system and is recorded to the nearest 0.1 %.
B. Verification of Operational Status	n/a	n/a	n/a	n/a	n/a
C. QA/QC Practices and Criteria	The steam recorder was calibrated when installed. The orifice plate will be inspected every other year for physical condition and BAF will check the overall health of the transmitter system by conducting span checks.	Digital pressure drop monitors have very little tendency to drift and calibration is not needed. ² The performance of the transmitters will be checked every other year and will include conducting span checks of the entire loop.	Digital pressure drop monitors have very little tendency to drift and calibration is not needed. ² The performance of the transmitter will be checked every other year and will include conducting span checks of the entire loop.	The pressure gauge reading will be compared with a second manual pressure gauge monthly. If readings differ by more than 1 psig, troubleshooting will be initiated.	Digital pressure drop monitors have very little tendency to drift and calibration is not needed. The performance of the transmitters will be checked every other year and will include conducting span checks of the entire loop. The induced draft fan speed setting does not require a calibration.
D. Monitoring Frequency	The boiler steam production is totaled continuously and recorded hourly.	Recorded every 2 hours.	Recorded every 2 hours.	Recorded every 2 hours.	Recorded every two hours.

	Indicator No.1	Indicator No.2	Indicator No.3	Indicator No.4	Indicator No. 5
I. Indicator	Boiler Steaming Rate	Multiclone pressure drop	Scrubber downstream static pressure	Scrubber water pressure	Combination of firebox static pressure and induced draft fan speed setting
Data Collection Procedures	Data acquisition system records hourly total.	Manually recorded in the boiler operating log.	Manually recorded in the boiler operating log.	Manually recorded in the boiler operating log.	Manually recorded in the boiler log.
Averaging period ¹	1-hour average steaming rate.	Not to be exceeded at any time	Not to be exceeded at any time	Not to be exceeded at any time	Not to be exceeded any time.

¹ The operating parameters are not to be deviated from at any time under normal operation. Periods of startup and shutdown are excluded.

² The statement regarding stability of digital pressure monitors was provided by BAF in December 7, 2007, Compliance Assurance Monitoring Design letter.

8. PERMIT CONDITIONS

This section describes only the changes made to the permit as a result of this permitting action.

Facility-wide Conditions

8.1 Emission Unit Description

The facility-wide conditions are the same as those in T1-060513, with the exception of an update to the monitoring requirements for potential sources of visible emissions (Permit Condition 2.8). The condition was updated to reflect the revised monitoring requirements contained in DEQ's current template.

Kipper Boiler

8.2 Emission Unit Description

The Kipper boiler is a wood and coal-fired boiler with a maximum steam production rate of 65,000 pounds per hour. The Kipper boiler was installed in 1981 and an economizer was added in 2001. A permit to construct for the Kipper boiler was issued to what was then the American Potato Company on July 30, 1980. See the permit to construct in Appendix B.

Incorporated requirements from Tier II Operating Permit No. T2-030515.

Boilers 1 and 2

8.3 Emission Unit Description

Boilers no. 1 and no. 2 were manufactured by Erie City, are natural gas-fired, and have rated heat input capacities of 52 MMBtu/hr and 35 MMBtu/hr, respectively. Boilers no. 1 and no. 2 were installed prior to 1965.

Incorporated requirements from Tier II Operating Permit No. T2-030515.

Process A

8.4 Emission Unit Description

Process A produces dehydrated potato products. Raw material inputs are cooked potatoes and additives, including sulfites. Products are produced via a series of cooling, drying and materials separation processes. Process A can operate up to 8,760 hours per year. Drying heat is provided by both natural gas combustion and steam from the plant boilers. Process A was constructed in the early 1960s.

No changes were made to the permit conditions for Process A. Additional description of the process was included in Table 5.1 to give the permit reader a better understanding of the emission units.

Process B

8.5 Emission Unit Description

Process B produces dehydrated food products. It also includes materials transport and packaging processes. Raw material inputs include cooked foods, previously dehydrated foods, and food additives,

including sulfites. Products are produced via a series of cooling, drying, and materials separation processes. Drying heat is provided by both natural gas combustion and steam produced by the plant boilers.

No changes were made to the permit conditions for Process B. Additional description of the process was included in Table 6.1 to give the permit reader a better understanding of the emission units.

Space Heaters

8.6 Emission Unit Description

There are currently 18 individual space heaters at the Rexburg facility in sizes ranging from less than 0.1 MMBtu/hr to 8.8 MMBtu/hr with a total combustion capacity of approximately 31 MMBtu/hr. Most of the space heaters are insignificant based on size. In accordance with IDAPA 58.01.01.317.01.b.i.(18), space heaters using natural gas, propane, or kerosene and generating less than 5 MMBtu/hr are insignificant activities. Currently there are two space heaters (shop roof heater and proctor roof heater) that exceed the insignificant activity criteria and are regulated by Section 7 of the permit. Both of these space heaters are direct-fired heating units.

8.7 Permit Conditions

The visible emissions standard, IDAPA 58.01.01.625, applies to emissions from the space heaters. Monitoring and recordkeeping requirements to demonstrate compliance with this standard are specified by facility-wide condition 2.8.

9. INSIGNIFICANT ACTIVITIES

The insignificant activities list did not change.

10. ALTERNATIVE OPERATING SCENARIOS

The facility did not request any alternative operating scenarios.

11. TRADING SCENARIOS

The facility did not request any trading scenarios.

12. COMPLIANCE SCHEDULE

12.1 Compliance Plan

With issuance of this modified Tier I operating permit that incorporates the requirements of facility-wide Tier II Operating Permit and Permit to Construct No. T2-030515 that was required by the initial compliance plan, the total compliance plan is satisfied and was removed from the permit.

12.2 Compliance Certification

Basic American Foods-Rexburg is required to periodically certify compliance in accordance with General Provision 21. The facility shall submit an annual compliance certification for each emissions unit to DEQ and EPA, in accordance with IDAPA 58.01.01.322.11. The compliance certification report shall address the compliance status of each emissions unit with the terms and conditions of this permit.

13. PERMIT REVIEW

13.1 Regional Review of Draft Permit

A draft Tier I permit was not provided to the Idaho Falls Regional Office because the permitting action did not involve any new requirements.

13.2 Public Comment

The public comment period will be provided. The States of Montana and Wyoming are within 50 miles of this Tier I Source and are affected states. As such, notification of the public comment period will be provided as required by IDAPA 58.01.01.364. Following the public comment period, EPA will be provided with a copy of the proposed Tier I permit for a review period per IDAPA 58.01.01.366.

14. ACID RAIN PERMIT

This facility is not an affected facility as defined in 40 CFR 72 through 75; therefore, acid rain permit requirements do not apply. The facility is not an affected unit according to the definitions and applicability under 72.2 and 72.6. The BAF Rexburg facility is a non-utility unit (72.6(b)(8)). "Unit" is defined as a fossil fuel-burning device and "utility" is defined as any facility that sells electricity.

15. REGISTRATION FEES

This facility is a major facility as defined by IDAPA 58.01.01.008.10; therefore, registration and registration fees in accordance with IDAPA 58.01.01.387 apply. The facility is in compliance with registration and registration fee requirements.

ZK/hp Permit No. T1-2008.0053

Appendix A
AIRS Data Entry Form

AIRS/AFS^a FACILITY-WIDE CLASSIFICATION^b DATA ENTRY FORM

Facility Name: Basic American Foods
Facility Location: Rexburg
AIRS Number: 065-00008

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO ₂	A	B					A	U
NO _x	A	B					A	U
CO	A	B					A	U
PM ₁₀	A	B					A	U
PT (Particulate)	A	B					A	U
VOC	B	B					B	U
THAP (Total HAPs)	B	ND					B	U
APPLICABLE SUBPART								

^a Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

^b AIRS/AFS Classification Codes:

- A** = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM** = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B** = Actual and potential emissions below all applicable major source thresholds.
- C** = Class is unknown.
- ND** = Major source thresholds are not defined (e.g., radionuclides).

Appendix B
Kipper Boiler PTC Letters



STATE OF IDAHO

DEPARTMENT OF HEALTH
AND WELFARE

DIVISION OF ENVIRONMENT
Statehouse
Boise, Idaho 83720

July 30, 1980

CERTIFIED MAIL #753039

Mr. Frank C. Haas
American Potato Company
P. O. Box 592
Blackfoot, Idaho 83221

Dear Mr. Haas:

This Department has reviewed your July 2, 1980 application for a Permit to Construct a Kipper & Sons spreader stoker boiler, fired with wood waste and up to 39% coal, rated at 60,000 lbs/hr of steam at 325psig, with emissions controlled by a Zurn type MTSA-60-9 CYT-STD-XT multiclone with 112 tubes and a Riley Model A-33-34,000 venturi-rod scrubber, with induced draft fan near Rexburg, Idaho, and is satisfied that the boiler, as proposed, is capable of complying with applicable Rules and Regulations for the Control of Air Pollution in Idaho. Therefore, this letter shall serve as your Permit to Construct the proposed boiler.

This permit is being issued subject to the following conditions:

- 1) Emissions of particulate matter shall not exceed the limits specified in Section 1-1301 of the Rules and Regulations for the Control of Air Pollution in Idaho.
- 2) Equipment shall be source tested for compliance using wood and wood/coal fuel mixtures within 60 days after startup. The Pocatello Office of the Division of Environment shall be notified when the test is to take place.
- 3) Sulfur content of any coal burned shall not exceed 1% by weight.

EQUAL OPPORTUNITY EMPLOYER

Mr. Frank C. Haas
Page 2
July 30, 1980

While the Department is satisfied that your boiler, as proposed, will not violate applicable air quality standards, this Permit should not be construed as a waiver of your responsibility to comply with all local, state and federal rules, regulations and standards.

Sincerely,

for
Lee W. Stokes, Ph.D.
Administrator

Robert P. Olson

LWS/bf
cc: Henry Moran

April 30, 1981

Mr. F. C. Haas
American Potato Company
Post Office Box 592
Blackfoot, Idaho 83221

Dear Mr. Haas:

We have reviewed your April 21 request for an amendment to your July 30, 1980 Permit To Construct, and we believe your request is reasonable. Therefore condition #2 of the July 30 Permit is amended to read:

- 2) Within sixty (60) days after achieving the maximum production rate at which the source will be operated, but not later than one hundred eighty (180) days after initial start-up of such source, the Company shall conduct a performance test in accordance with methods and under operating conditions approved by the Department and furnish the Department a written report of the results of such performance test.

Sincerely,

Lee W. Stokes, Ph.D.
Administrator

LWS/b

cc: Henry Moran



STATE OF IDAHO

DEPARTMENT OF HEALTH
AND WELFARE

DIVISION OF ENVIRONMENT

Statehouse
Boise, Idaho 83720
334-5362

Routed 5-10-84

May 8, 1984

Lyie MP
Loren LS
KSH KSH
MLG D
Ref'n to FCH

Copy to
cc to Mr. Gene L. Hite
5-10-84

Mr. Frank Haas
American Potato Company
P. O. Box 592
Blackfoot, Idaho 83221

RE: Coal as fuel in the 60,000 lb/h boiler at Rexburg

Dear Mr. Haas:

This will confirm our phone conversation of May 7, 1984. The original permit was based on supply the heat-input with a 50/50 mix of coal and wood. The heat-input basis was converted to a weight-basis, which was the origin of the limit of 39% coal in the fuel, weight basis. You are allowed, therefore, to use coal up to 39% of the total weight of fuel and 50% of the heat input.

An Air Quality Bureau representative will observe the stack when you are firing an increased proportion of coal. If the opacity (darkness) of the plume is over 20%, we will require a stack test to confirm that particulate emissions are within limits.

Sincerely,

Clint Ayer

Clint Ayer
Senior Engineer
Air Quality Bureau

CA/bf

cc: COF 1.1
Source File
Robert Wilkosz, Pocatello Field Office, AQB

cc AXB G BOWEN F. Te

EQUAL OPPORTUNITY EMPLOYER